May 1998

It's the Air — And a Lot More

Some of the top news stories in Washington State recently have described the problems facing our state's once vigorous salmon stocks. Earlier in this century, our streams and rivers teemed with returning salmon, and it seemed they were an endless natural resource. But through a combination of many factors – not the least being human actions – salmon stocks have become depleted to an alarming degree.

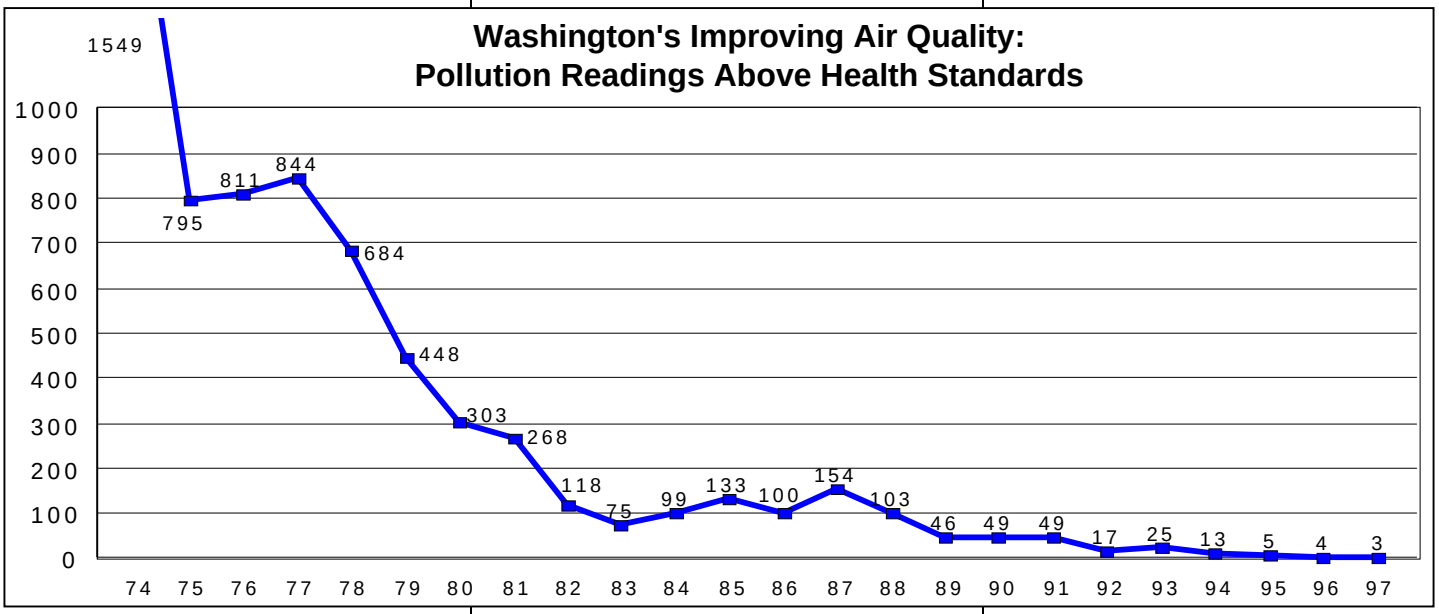
Like the wild salmon, our clean air is frequently taken for granted. After all, in 1997 Washington marked its best year ever for meeting health-based federal standards for outdoor air. In the early 1970s, when Ecology first began monitoring air pollutants, Washington had poor air quality 1,500 times. In 1997, there were just three high air pollutant readings. This means most people in Washington are breathing clean air.

Excellent progress? **Yes!**

The end of all our air quality problems? **Absolutely not!**

Better, but not perfect

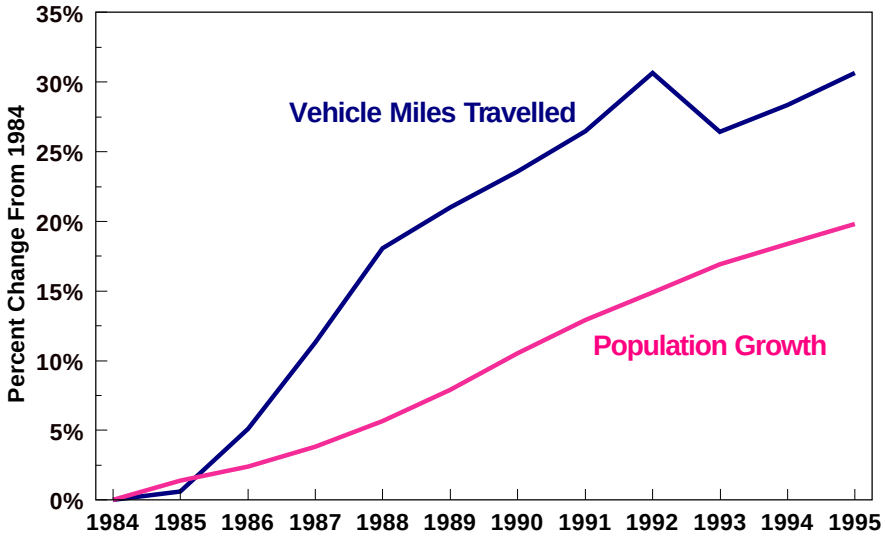
Washington's air isn't perfect. The Vancouver/Portland and Puget Sound areas are meeting the standard for ozone, but only by a thin margin. Areas of Thurston County and Kent, Lynnwood, and Bellevue have recently experienced levels of carbon monoxide that, although within the standard, are high enough to cause concern as those communities continue to grow. Although Spokane's carbon monoxide levels did not



exceed the standard during 1997, that area has recently been designated a "serious" nonattainment area by the federal Environmental Protection Agency (EPA), and must ensure that its pollutant levels continue to decline. Both the Spokane and Wallula areas are impacted by windblown dust and are working to find ways to protect public health by minimizing exposure to particulate matter during dust storms. And, most important in all areas of the state, population continues to grow – and use of automobiles (the leading source of air pollution) continues to grow even faster. (See the chart on this page.)

What we've been doing right

Although we still face some challenges, it's obvious from the chart on page 1 that we've been doing something right. The dramatic decrease in air pollution over the last 20 years is due to a combination of things, including better technology for industry and cleaner cars. In addition, the Emission Check Program has been shown to reduce air pollution from tested cars and trucks by about 20 percent. The wood stove program has tightened emission standards for wood stoves and fireplaces, and continues to educate people on cleaner burning methods that reduce particulate matter pollution. Gasoline vapor recovery systems prevent gas vapors from escaping into the air at gas pumps, preventing the release of ozone-causing pollutants into the air. Agricultural burning of grass seed fields has been reduced by about two thirds since 1995, resulting in lower levels of small particulate matter and other compounds harmful to health. These improvements are even more impressive when you consider that Washington's population has grown by about 20 percent since 1984.



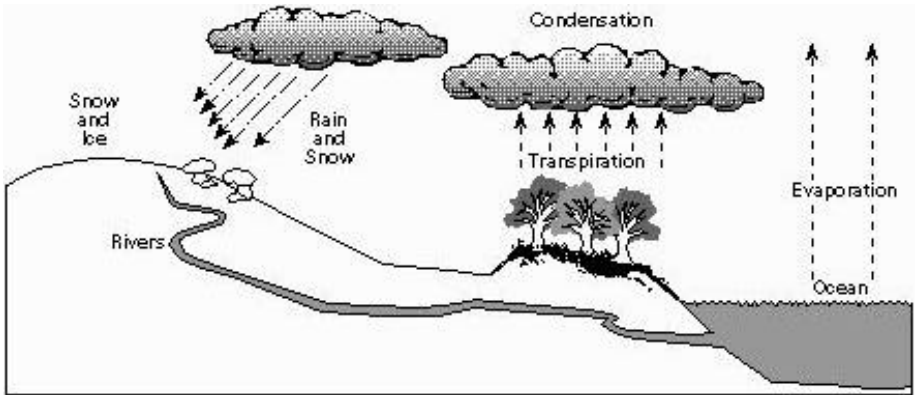
Due to population growth, vehicle pollution is expected to increase shortly after the turn of the century as the amount of driving outstrips improvements from emission controls and cleaner fuels.

Tying it all together

The plight of the salmon, degradation of water quality in some areas of the state, and ever-increasing demands on water resources caused by our growing population have made water issues Ecology's top priority for the coming years. Population growth is a major issue for both air and water quality. And it's possible that some of the actions described above that have been most successful in improving air quality can also benefit water.

Both water quality and air quality are tied to weather systems. Air currents and weather patterns generate water conditions around the globe. Ocean currents, in turn, determine precipitation and wind patterns. (This should sound familiar if you have been paying any attention to the recent deluge of El Niño information.)

When there are pollutants in the air, the precipitation that occurs as part of the water cycle picks up these pollutants from the air and transfers them to surface and ground waters. In addition, windblown particles often find resting places in surface waters, sometimes depositing other pollutants that have "piggy-backed" onto the particles.



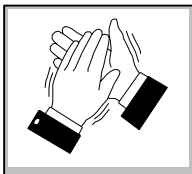
Water evaporates from the surface of the earth, rises into the air where it condenses to form clouds, then falls to earth again as rain, hail, sleet, or snow.

Aside from their immediate impacts on water quality, these pollutants may be "recycled" through air and water again and again via the water cycle.

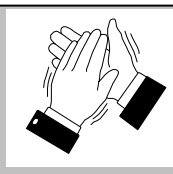
One of the most well known ways that air pollution is transferred to water is acid rain. Acid rain is really rain, snow, or fog that contains acid (sulfur dioxides and nitrogen oxides in the air mix with water drops to form sulfuric and nitric acid). The drops then fall to earth as acid rain, which changes the chemistry of lakes and streams and can potentially contaminate drinking water. Although acid rain is probably one of the first things people think about when they think of air pollution in relation to water pollution, acid rain has not been a significant problem in Washington. Of greater concern for both air and water quality in Washington is population growth, which brings increased development, more demand for goods and services, loss of green space and habitat, and increased use of cars. An annual report on how Ecology's Air Quality Program has been successfully addressing these problems and their impacts on air quality is available from Ecology's Publications Office at P.O. Box 47600, Olympia, WA 98504-7600. Ask for the 1997 Air Quality Annual Report, publication number 97-208.

Update

Are you planning to construct or significantly modify your business facility in Washington in the next two years? Will the



Lifestyles



This column is traditionally devoted to describing the things you can do to prevent and reduce air pollution. Here, for a change, is a list of what you've been doing right, and how it has helped.

- In Thurston County, Spokane, Yakima, and central Puget Sound, residents have helped reduce levels of particulate matter by burning their wood stoves and fireplaces more cleanly or using other heating methods, and by taking appropriate actions during burn bans and using voluntary burning controls on "stagnant air" days.
- In the Wenatchee Valley area, residents participate in voluntary burn bans on days when weather conditions are ripe for poor air quality. By voluntarily limiting indoor and outdoor burning at these times, the community is helping to prevent particulate matter from reaching unhealthy levels.
- Statewide, 1,243,726 people had their cars or trucks emission tested during 1997. The Emission Check Program has been shown to reduce carbon monoxide emissions from tested vehicles by 20 percent. Repairs to polluting vehicles resulted in lower carbon monoxide levels in the Puget Sound, Vancouver, and Spokane areas.
- Thousands of citizens took individual responsibility for their contributions to air pollution by driving less, switching to electric or manual lawn and garden tools, buying "green" products, using fewer chemicals around the house, and suggesting ways to prevent pollution to their employers.

Update (*continued*)

facility be a "major source" of hazardous air pollutants? Will it fit into one of the Maximum Achievable Control Technology (MACT) categories that EPA will be writing standards for between June 1998 and December 2000? If you answered "yes" to all three questions, you should know that Ecology and some local air pollution control agencies are adopting regulations to enable us to make case-by-case MACT decisions during the time period June 1998 to December 2000. If you don't know the answers to these questions or would like more information, contact: Carol Piening, (360) 407-6858 (Email: cpie461@ecy.wa.gov).

Ecology's Air Quality Program issued a permit to Battle Mountain Gold Company in January 1998 for the proposed Crown Jewel Mine Project in Okanogan County. The permit directs Ecology to establish a citizen advisory committee on monitoring and other air quality issues associated with the project. Ecology appointed an Interim Citizens Advisory Committee to review and submit comments to Ecology on the Draft Construction Phase Fugitive Dust Control Plan, and to make recommendations to Ecology about how to form and operate a long-term Citizens Advisory Committee. The Interim Committee has completed both tasks and Ecology has begun the process of appointing the long-term Citizens Advisory Committee. For more information: Christine Corrigan, (509) 454-7845.

Ecology has proposed mechanical methods to remove crop residue as an alternative to grass seed field burning. A public hearing is planned for the afternoon and evening of May 5, 1998 at the Agricultural Trade Center in Spokane to receive comments on a recommendation to certify the alternative, which could end burning for almost all grass seed fields in the state. The alternative being proposed is to remove straw from fields using practices such as baling and raking. For more information: Jani Gilbert, (509) 456-4464.

Air Lines is published quarterly and offers updated information on the Clean Air Washington Act and other Air Quality Program activities. *Air Lines* welcomes your comments. Questions and contributions should be directed to:

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